

SEQUENCE LISTING

<110> SEIKAGAKU CORPORATION
 AMERSHAM BIOSCIENCES K.K.
 NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY
 Hisashi NARIMATSU
 Shigemi SUGIOKA
 Hideo MOCHIZUKI

<120> Sulfotransferase, peptide thereof and DNA encoding the same

<130> Q83405

<150> PCT/JP03/02500
 <151> 2003-03-04

<150> JP 2002-57527
 <151> 2002-03-04

<150> JP 2002-245994
 <151> 2002-08-26

<160> 16

<210> 1
 <211> 1041
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1041)

<400> 1
 atg cta ttc aaa cag cag gcg tgg ctg aga cag aag ctc ctg gtg ctg 48
 Met Leu Phe Lys Gln Gln Ala Trp Leu Arg Gln Lys Leu Leu Val Leu
 1 5 10 15

gga agc ctt gcc gtt ggg agt ctc ctg tat cta gtc gcc aga gtt ggg 96
 Gly Ser Leu Ala Val Gly Ser Leu Leu Tyr Leu Val Ala Arg Val Gly
 20 25 30

agc ttg gat agg cta caa ccc att tgc ccc att gaa ggt cga ctg ggt 144
 Ser Leu Asp Arg Leu Gln Pro Ile Cys Pro Ile Glu Gly Arg Leu Gly
 35 40 45

gga gcc cgc act cag gct gaa ttc cca ctt cgc gcc ctg cag ttt aag 192
 Gly Ala Arg Thr Gln Ala Glu Phe Pro Leu Arg Ala Leu Gln Phe Lys
 50 55 60

cgt ggc ctg ctg cac gag ttc cgg aag ggc aac gct tcc aag gag cag 240
 Arg Gly Leu Leu His Glu Phe Arg Lys Gly Asn Ala Ser Lys Glu Gln
 65 70 75 80

gtt cgc ctc cat gac ctg gtc cag cag ctc ccc aag gcc att atc att 288
 Val Arg Leu His Asp Leu Val Gln Gln Leu Pro Lys Ala Ile Ile Ile
 85 90 95

ggg gtg agg aaa gga ggc aca agg gcc ctg ctt gaa atg ctg aac cta 336

Gly Val Arg Lys Gly Gly Thr Arg Ala Leu Leu Glu Met Leu Asn Leu			
100	105	110	
cat ccg gca gta gtc aaa gcc tct caa gaa atc cac ttt ttt gat aat			384
His Pro Ala Val Val Lys Ala Ser Gln Glu Ile His Phe Phe Asp Asn			
115	120	125	
gat gag aat tat ggt aag ggc att gag tgg tat agg aaa aag atg cct			432
Asp Glu Asn Tyr Gly Lys Gly Ile Glu Trp Tyr Arg Lys Lys Met Pro			
130	135	140	
ttt tcc tac cct cag caa atc aca att gaa aag agc cca gca tat ttt			480
Phe Ser Tyr Pro Gln Gln Ile Thr Ile Glu Lys Ser Pro Ala Tyr Phe			
145	150	155	160
atc aca gag gag gtt cca gaa agg att tac aaa atg aac tca tcc atc			528
Ile Thr Glu Glu Val Pro Glu Arg Ile Tyr Lys Met Asn Ser Ser Ile			
165	170	175	
aag ttg ttg atc att gtc agg gag cca acc aca aga gct att tct gat			576
Lys Leu Leu Ile Ile Val Arg Glu Pro Thr Thr Arg Ala Ile Ser Asp			
180	185	190	
tat act cag gtg cta gag ggg aag gag agg aag aac aaa act tat tac			624
Tyr Thr Gln Val Leu Glu Gly Lys Glu Arg Lys Asn Lys Thr Tyr Tyr			
195	200	205	
aag ttt gag aag ctg gcc ata gac cct aat aca tgc gaa gtg aac aca			672
Lys Phe Glu Lys Leu Ala Ile Asp Pro Asn Thr Cys Glu Val Asn Thr			
210	215	220	
aaa tac aaa gca gta aga acc agc atc tac acc aaa cat ctg gaa agg			720
Lys Tyr Lys Ala Val Arg Thr Ser Ile Tyr Thr Lys His Leu Glu Arg			
225	230	235	240
tgg ttg aaa tac ttt cca att gag caa ttt cat gtc gtc gat gga gat			768
Trp Leu Lys Tyr Phe Pro Ile Glu Gln Phe His Val Val Asp Gly Asp			
245	250	255	
cgc ctc atc acg gaa cct ctg cca gaa ctt cag ctc gtg gag aag ttc			816
Arg Leu Ile Thr Glu Pro Leu Pro Glu Leu Gln Leu Val Glu Lys Phe			
260	265	270	
cta aat ctg cct cca agg ata agt caa tac aat tta tac ttc aat gct			864
Leu Asn Leu Pro Pro Arg Ile Ser Gln Tyr Asn Leu Tyr Phe Asn Ala			
275	280	285	
acc aga ggg ttt tac tgc ttg cgg ttt aat att atc ttt aat aag tgc			912
Thr Arg Gly Phe Tyr Cys Leu Arg Phe Asn Ile Ile Phe Asn Lys Cys			
290	295	300	
ctg gcg ggc agc aag ggg cgc att cat cca gag gtg gac ccc tct gtc			960
Leu Ala Gly Ser Lys Gly Arg Ile His Pro Glu Val Asp Pro Ser Val			
305	310	315	320
att act aaa ttg cgc aaa ttc ttt cat cct ttt aat caa aaa ttt tac			1008
Ile Thr Lys Leu Arg Lys Phe Phe His Pro Phe Asn Gln Lys Phe Tyr			
325	330	335	
cag atc act ggg agg aca ttg aac tgg ccc taa			1041

Gln Ile Thr Gly Arg Thr Leu Asn Trp Pro
340 345

<210> 2
<211> 346
<212> PRT
<213> Homo sapiens

<400> 2
Met Leu Phe Lys Gln Gln Ala Trp Leu Arg Gln Lys Leu Leu Val Leu
1 5 10 15
Gly Ser Leu Ala Val Gly Ser Leu Leu Tyr Leu Val Ala Arg Val Gly
20 25 30
Ser Leu Asp Arg Leu Gln Pro Ile Cys Pro Ile Glu Gly Arg Leu Gly
35 40 45
Gly Ala Arg Thr Gln Ala Glu Phe Pro Leu Arg Ala Leu Gln Phe Lys
50 55 60
Arg Gly Leu Leu His Glu Phe Arg Lys Gly Asn Ala Ser Lys Glu Gln
65 70 75 80
Val Arg Leu His Asp Leu Val Gln Gln Leu Pro Lys Ala Ile Ile Ile
85 90 95
Gly Val Arg Lys Gly Gly Thr Arg Ala Leu Leu Glu Met Leu Asn Leu
100 105 110
His Pro Ala Val Val Lys Ala Ser Gln Glu Ile His Phe Phe Asp Asn
115 120 125
Asp Glu Asn Tyr Gly Lys Gly Ile Glu Trp Tyr Arg Lys Lys Met Pro
130 135 140
Phe Ser Tyr Pro Gln Gln Ile Thr Ile Glu Lys Ser Pro Ala Tyr Phe
145 150 155 160
Ile Thr Glu Glu Val Pro Glu Arg Ile Tyr Lys Met Asn Ser Ser Ile
165 170 175
Lys Leu Leu Ile Ile Val Arg Glu Pro Thr Thr Arg Ala Ile Ser Asp
180 185 190
Tyr Thr Gln Val Leu Glu Gly Lys Glu Arg Lys Asn Lys Thr Tyr Tyr
195 200 205
Lys Phe Glu Lys Leu Ala Ile Asp Pro Asn Thr Cys Glu Val Asn Thr
210 215 220
Lys Tyr Lys Ala Val Arg Thr Ser Ile Tyr Thr Lys His Leu Glu Arg
225 230 235 240
Trp Leu Lys Tyr Phe Pro Ile Glu Gln Phe His Val Val Asp Gly Asp
245 250 255
Arg Leu Ile Thr Glu Pro Leu Pro Glu Leu Gln Leu Val Glu Lys Phe
260 265 270
Leu Asn Leu Pro Pro Arg Ile Ser Gln Tyr Asn Leu Tyr Phe Asn Ala
275 280 285
Thr Arg Gly Phe Tyr Cys Leu Arg Phe Asn Ile Ile Phe Asn Lys Cys
290 295 300
Leu Ala Gly Ser Lys Gly Arg Ile His Pro Glu Val Asp Pro Ser Val
305 310 315 320
Ile Thr Lys Leu Arg Lys Phe Phe His Pro Phe Asn Gln Lys Phe Tyr
325 330 335
Gln Ile Thr Gly Arg Thr Leu Asn Trp Pro
340 345

<210> 3
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5' Primer for PCR

<400> 3
ctacaaccca tt 12

<210> 4
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3' Primer for PCR

<400> 4
tttagggccag tt 12

<210> 5
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5' Primer for PCR

<400> 5
atgctattca aa 12

<210> 6
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5' Primer for PCR (GP-226)

<400> 6
cggaactcgt gcagcaggcc acgc 24

<210> 7
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5' primer for PCR (GP-224)

<400> 7
tcgacacctca atggggcaaa tggg 24

<210> 8
<211> 25
<212> DNA
<213> Artificial Sequence

```

<220>
<223> Description of Artificial Sequence: 5' primer for PCR (SFTex2F)

<400> 8
actggggAAC cagaaaaATG AAAAG 25

<210> 9
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3' primer for PCR (SFTex2R)

<400> 9
gtgtctccAG gcacaacaca TAGTG 25

<210> 10
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5' primer for PCR (SFTgateF2)

<400> 10
ggggacaAGT ttgtacaaaa aagcaggctt cttaAGCgt ggcctgctgc acgag 55

<210> 11
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3' primer for PCR (SFTgateTstop)

<400> 11
ggggaccACT ttgtacaAGA aagctgggtt tagggccAGT tcaatgtcct ccc 53

<210> 12
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Ig kappa signal sequence

<400> 12
Met His Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser.
1 5 10 15

Val Ile Met Ser Arg Gly
20

```

<210> 13
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: FLAG peptide

<400> 13
Asp Tyr Lys Asp Asp Asp Lys
1 5

<210> 14
<211> 94
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: OT3 sequence

<400> 14
gatcatgcat tttcaagtgc agattttcag cttcctgcta atcagtgcct cagtcataat 60
gtcacgtgga gattacaagg acgacgatga caag 94

<210> 15
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: OT20 sequence

<400> 15
cgggatccat gcattttcaa gtgcag 26

<210> 16
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: OT21 sequence

<400> 16
ggaattcttg tcatcgctgt ccttg 25